

Date: Wednesday, 9/26/2007 7:56:03 AM
 User: Kim Johnston

Process Sheet

SPLIT

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SADDLE BILLET
Job Number : 34873 -3	
Estimate Number : 10033	
P.O. Number : N/A	Part Number : D6101003
This Issue : 9/26/2007 S.O. No. : N/A	Drawing Number : D6101 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : MACHINED PARTS	Drawing Revision : A
Previous Run : 34644	Material : N/A
Written By : <u>07.09.26</u>	Due Date : 10/26/2007
Checked & Approved By : <u>07.09.26</u>	Qty: <u>100</u> 300 Um: Each
Comment : Est. A. 01.05.04 New Issue EC	

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 PG. PURCHASING



Comment: PURCHASING

Issue P/O: 4685

07/10/24

- a) Description: Alluminum billet
- b) 7.875" x 6.250" x 2.00" thick
- c) Tolerance on all dimensions are +0.030"/-0.000"
- d) Grain direction along 7.875" length
- e) Material: 7075-T7351 (QQ-A-250/12)
- f) Material certification required

(300)

2.0 D6101003P 7075-T7351 2X6.25X7.875



Comment: Qty.: 1.0000 Each(s)/Unit Total : 300.0000 Each(s)
 7075-T7351 2X6.25X7.875

3.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
 Receive & Inspect For Transit Damage
 Ensure material certification is attached

08/01/08

(100)

4.0 QC6 DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK
 Ensure Material certification comply to Dwg D6101

08/01/11

08/01/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: D Date: 08/01/17
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 9/26/2007 7:56:03 AM

User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE BILLET

Job Number: 34873

Part Number: D6101003

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

Machining

87 08/08/09

6.0

QC21

FINAL INSPECTION/W/O RELEASE



(100)

Comment: FINAL INSPECTION/W/O RELEASE

08/01/11

Job Completion



U 08.01.11

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

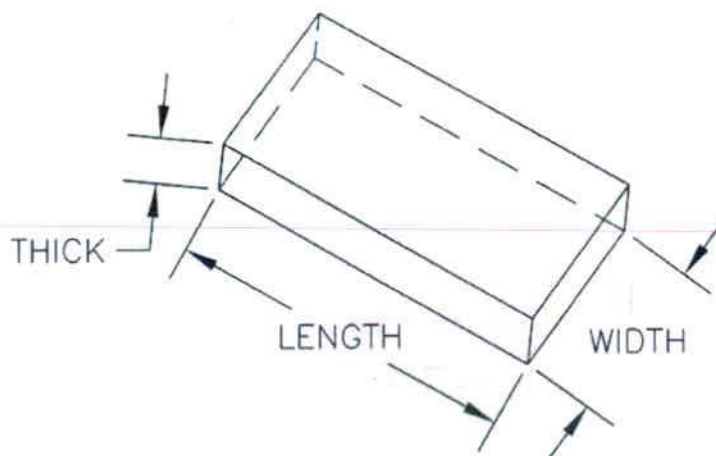
NOTE: Date & initial all entries



DESIGN CP	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D6101	Rev. A SHEET 1 OF 1
DATE 01.03.30		TITLE SADDLE BILLET, 7075	SCALE NTS
A	01.03.30	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01.04.23



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH, WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

SHOP COPY
RETURN TO
DRAWING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34873

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length

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51 558087 434026 01



A.M. CASTLE & Co. (Canada) Inc.

EXPÉDIE 04 JAN 2000

JO. REQUISITION CLIENT-CUSTOMER REQUISITION NO.		NO. COM. CLIENT-CUST. ORD. NO.		COMPTÉ-ACCT.	VEND. SLS	TERR.	EXPÉDIE PAR-SHIP VIA	
		4685		91037	200	40	TRUCK MANITOULA	
ACHETEUR-PURCHASING AGENT		TELEPHONE	H/C	TAXE	NO. COM ORD	REGION LIVRAISON-DEL ZONE		F.A.B.-F.O.B.
LINDA LACELLE		613 632-3336	9	0	1	C/C		PREPAID
/IVRÉ A-SHIP TO:		VENDU A-SOLD TO:				INFORMATION CRÉDIT-CREDIT INFORMATION		ROUTE
		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY ON K6A 1K7				R2C SEE FRANCE STATUS		01-NL-10/2 31-NL-01/3
INSTRUCTIONS/LIVRAISON-DELIVERY		INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)				INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)		
IND-H60156								

DESCRIPTION - ITEM 1		QTE/UNITE COM. ORDERED		POIDS COM. WT. ORDERED
2.0000 PLATE 7075-T7351 ALUM 6.25" X 7.875"		100 PCS		995
BLACK W/RED STRIPE		BALLOTS-BUNDLES		POIDS EXP. WT. SHIPPED
		1 (100)		995
CERTIFICATE OF CONFORMANCE A.M. Castle & Co. certifies that the material(s) supplied under this document will meet and conform to the specifications of the product(s) described hereon. A.M. Castle & Co. (Canada) Inc.		COULÉE INFO-HEAT INFO QTE-QTY		FORME-SHAPE I.A.C.
INSTRUCTIONS TOL: +.025"/-.000" THICKNESS TOL.: +.030"/-.000" GRAIN TO RUN ALONG 7.875" ATTN MARTINE: NE PAS EXPÉDIER PRIOR DIST/ORD: 01 434026		713666AL 91 403711AS (600) 9 29.08850F		6857
WEIGHT FOR SHIPPING PURPOSES ONLY. SEE INVOICES FOR ACCURATE BILLING WEIGHT. PLEASE SIGN AND DATE DRIVER'S COPY FOR RECEIPT OF MATERIAL AND, IF CHECKED, TEST REPORTS.		INSTRUCTIONS (CONT'D.)		ENT-V
		100x6.25x7.875		N3

DESCRIPTION - ITEM 2		QTE/UNITE COM. ORDERED		POIDS COM. WT. ORDERED
TERMS AND CONDITIONS OF SALE SEE DISCLAIMERS AND LIMITATIONS ON THE REVERSE SIDE		BALLOTS-BUNDLES		POIDS EXP. WT. SHIPPED
INSTRUCTIONS		COULÉE INFO-HEAT INFO QTE-QTY		FORME-SHAPE I.A.C.
1 Box				
INSTRUCTIONS (CONT'D.)				ENT-V

DESCRIPTION - ITEM 3		QTE/UNITE COM. ORDERED		POIDS COM. WT. ORDERED
ALL EXCEPTIONS FOR SHORTAGE OR DAMAGE MUST BE NOTED ON THE DRIVER COPY & CUSTOMER COPY OF THE DELIVERY RECEIPTS & SIGNED BY THE DRIVER & CUSTOMER. COPY OF SUCH RECEIPT PROPERLY NOTED MUST BE SUBMITTED WITHIN 10 DAYS WHEN CREDIT IS REQUESTED.		BALLOTS-BUNDLES		POIDS EXP. WT. SHIPPED
INSTRUCTIONS		COULÉE INFO-HEAT INFO QTE-QTY		FORME-SHAPE I.A.C.
INSTRUCTIONS (CONT'D.)				ENT-V

NOM (LETTRE MOULÉE)-NAME (PRINT ONLY)

RECU PAR-RECEIVED BY

DATE RECU-
DATE RECEIVED

FEVILLE D'EMBALLAGE - PACKING SLIP



SHIP TO: A M CASTLE & CO 3400 NO. WOLF ROAD FRANKLIN PARK, IL 60131	
SOLD TO: AM CASTLE & CO 3400 NO. WOLF ROAD FRANKLIN PARK, IL 60131	
CUSTOMER PO NUMBER: 01-84412	WORK PACKAGE:
CUSTOMER PART NUMBER: 6857 A97075-80	SHIP RUN/LOAD ID: 100992/24
GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1049378	LINE ITEM: 1
SHIP DATE: 8-JUN-2007	ALLOY: 7075
CLAD: BARE	TEMPER: T7351
PRODUCT DESCRIPTION: MILL FINISH PLATE	
WEIGHT SHIPPED: 4300 LB	QUANTITY: 3 PCS EST.
B/L NUMBER: 2013189	GAUGE: 2.0000 IN
WIDTH: 48.500 IN	LENGTH: 144.500 IN

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4099554

Certified Specifications

AMS 4078/RevG
ASTM B 209/Rev06
BSS 7055/RevA
DPS 4.713/RevN/AmdAF
GSS16100/RevG

AMS-QQ-A-250/12
ASTM B 594/Rev06
CMMP 025/RevR
EAC MS1011/RevD
MMS 159/RevN

AMS-STD-2154
BAC 5439/RevH
CSTI 006/RevC
GAMPS 9101/RevB
PS 21211/RevK

Test Code: 4297

Test Results

Lot: 403711A5 Cast 976

Drop 81

Ingot 3

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.7 : 73.8 (508 : 509)	62.3 : 62.8 (430 : 433)	11.5 : 11.6
		Conductivity %IACS :	42.0 Min	42.5 Max	
		(MS/M) :	24.4 Min	24.7 Max	

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.10	0.11	1.5	0.01	2.5	0.19	5.7	0.01	0.01	0.00	TOT 0.03

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

CASTLE METALS CORP.
DATE RCVD 6/11/07
IAC 6857
APPROVED BY fw-2



**KAISER
ALUMINUM**

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4099554

TEST NOTES

Metal represented by this test report was immersion
ultrasonically tested from one side and meets the Class A
and Class B requirements of all specifications referenced
on this test report.

CERTIFICATION

KAISER ALUMINUM & CHEMICAL CORPORATION (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM & CHEMICAL CORPORATION LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR

Bill Poy

10-17-'07 08:25 FROM-

T-768 P005/015 F-224

SHIP TO:

A M CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

SOLD TO:

AM CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4110419

CUSTOMER PO NUMBER: 01-36723		WORK PACKAGE:		CUSTOMER PART NUMBER: 6857 A97075-60		SHIP RUN/LOAD ID: 101087/10		GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1058424	LINE ITEM: 1	SHIP DATE: 9-OCT-2007	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: MILL FINISH PLATE			
WEIGHT SHIPPED: 8644 LB	QUANTITY: 6 PCS EST.	B/L NUMBER: 2014752	GAUGE: 2.0000 IN		WIDTH: 48.500 IN	LENGTH: 144.500 IN			

Certified Specifications

AMS 4078/RevG
ASTM B 209/Rev06
BSS 7055/RevA
DPS 4.713/RevN/AmdAF
GSS16100/RevG

AMS-QQ-A-250/12
ASTM B 594/Rev06
CMMP 025/RevR
EAC MS1011/RevE
MMS 159/RevN

AMS-STD-2154
BAC 5439/RevH
CSTI 006/RevC
GAMPS 9101/RevB
PS 21211/RevK

Test Code: 4297

Test Results

Lot: 413883A0 Cast 129 Drop 89 Ingot 1

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	72.8 : 73.3 (502 : 505)	62.0 : 63.0 (427 : 434)	11.7 : 11.8

(ASTM E1004)

Conductivity %IACS :	41.5 Min	41.6 Max
(MS/M) :	24.1 Min	24.1 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.11	0.19	1.4	0.02	2.5	0.20	5.6	0.02	0.01	0.01	TOT 0.03

CASTLE METALS CORP.
DATE RCVD 10/17/07
IAC 6857
APPROVED BY

**KAISER
ALUMINUM**Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586**CERTIFIED TEST REPORT**

Serial Number

4110419

Lot: 414187A5 Cast 129 Drop 42 Ingot 1

(ASTM E8/B557)		Dir / # Tests LT / 2 (Min:Max)	Ultimate KSI (MPA) 73.0 : 73.0 (503 : 503)	Yield KSI (MPA) 62.5 : 62.5 (431 : 431)	Elongation % 10.4 : 11.9
Tensile:	Temper T7351				

(ASTM E1004)	
Conductivity %IACS :	41.9 Min 41.9 Max
(MS/M) :	24.3 Min 24.3 Max

(ASTM E1251)														
Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	TOT	OTHER		
Actual	0.11	0.19	1.4	0.02	2.4	0.20	5.5	0.02	0.01	0.01		0.03		

Lot: 713666A6 Cast 100 Drop 02 Ingot 1 Parent Lot: 413783A2

(ASTM E8/B557)		Dir / # Tests LT / 2 (Min:Max)	Ultimate KSI (MPA) 70.4 : 71.8 (485 : 495)	Yield KSI (MPA) 59.9 : 61.6 (413 : 425)	Elongation % 12.1 : 12.4
Tensile:	Temper T7351				

(ASTM E1004)	
Conductivity %IACS :	42.2 Min 42.3 Max
(MS/M) :	24.5 Min 24.5 Max

(ASTM E1251)													
Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	TOT	OTHER	
Actual	0.12	0.20	1.4	0.02	2.4	0.19	5.5	0.02	0.01	0.01		0.04	

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

Metal represented by this test report was immersion ultrasonically tested from one side and meets the Class A and Class B requirements of all specifications referenced on this test report.

